

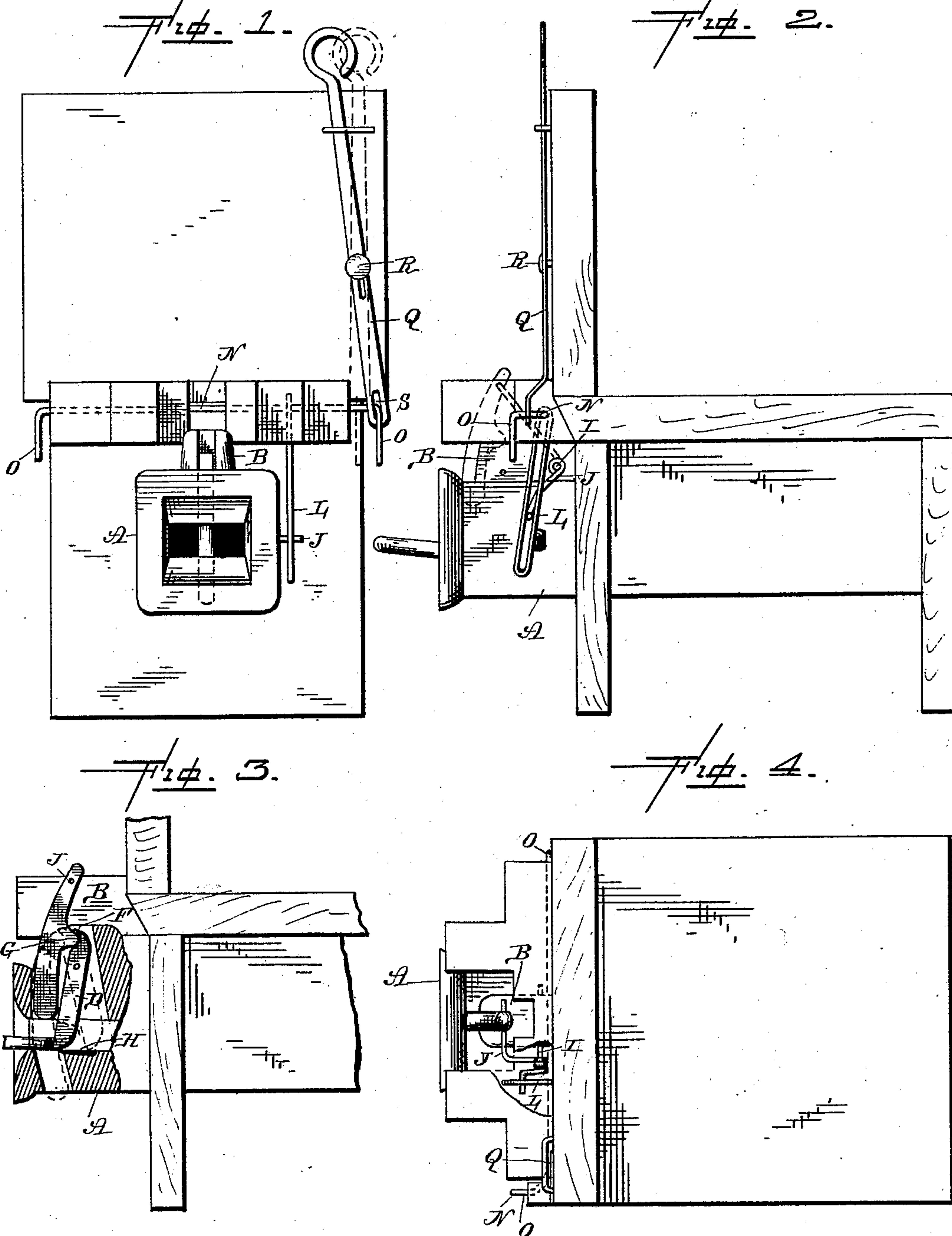
(No Model.)

W. ROBINSON.

CAR COUPLING.

No. 302,524.

Patented July 22, 1884.



—Witnesses.—
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UNITED STATES PATENT OFFICE.

WILLIAM ROBINSON, OF BELLEFONTAINE, OHIO, ASSIGNOR OF ONE-FOURTH
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 302,524, dated July 22, 1884.

Application filed December 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, WM. ROBINSON, of Bellefontaine, in the county of Logan and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in car-couplings; and it consists, first, in the combination of the trigger, the coupling-pin, a crank or bent rod for operating the pin, and an endwise moving and rotating rod for operating the crank and the pin; second, in the combination of the draw-head having a projection on one side, the trigger inside of the head, the coupling-pin, the crank connected to the pin, an endwise moving and rotating rod having an arm or lever connected thereto for operating the crank and catching behind the projection to prevent the pin from falling; third, in the arrangement and combination of parts, which will be more fully described hereinafter.

The object of my invention is to provide an automatic car-coupling which can be operated either from the top or the side of the car, and in which the pin can be set in a raised position and then locked in place, so that the cars cannot possibly couple until it is desired that they shall.

Figure 1 is a front elevation of a coupling embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal vertical section. Fig. 4 is a plan view.

A represents the draw head, of any suitable construction, upon the top of which is formed the rib or flange B. Through the top of the draw-head is formed a suitable opening for the pin C to play freely through, and in the front end of the flange B is made a curved groove, which serves as a guide to keep the pin straight in its movement. Pivoted in the front end of this rib or flange, and projecting down into the head, is the trigger D, which has a notch, F, made in its upper end, for the projection G on the rearedge of the pin to catch in. When the pin is raised upward to its full extent, the

projection G catches in the recess in the upper end of the trigger, and the pin is supported in this elevated position, ready either to couple when the cars run together, or to be held in this position so that the cars cannot be coupled unless it is desired to do so. While the pin is held in this raised position, the lower end of the trigger is forced forward, ready to be struck by the incoming link of another car, and when struck, unless the pin is locked in its raised position, the pin is tripped and drops at once. In the head A, just in the rear of the hole through its bottom for the pin to pass through, there is made a depression, H, in which the inner end of the coupling-link can be forced downward, so as to hold it in a slightly-raised position ready for coupling. The projection G on the pin serves to catch over the inner end of the link and to hold it in position.

Passed through the flange B is the rod or bolt I, which serves as a pivot upon which the bent rod or crank J turns. The upper end of this rod or crank is turned upward over the top of the head and passes through the upper end of the coupling-pin. The lower end of the rod or crank projects a suitable distance below the bolt I, and is turned outward, so as to catch in the slot in the arm or lever L, which projects downward from the partially-rotating and endwise-moving rod N. When the rod N—which extends across the end of the car and is provided with a handle, O, at each end—is partially turned, the arm or lever L is moved so as to operate the crank and either raise or depress the pin, as may be desired. The crank being connected to the pin, and the crank connected to the arm L of the rod N, the pin can only be moved in connection with these parts. A person on either side of the car, by catching hold of one end of the handle O, can raise or depress the coupling-pin without having to go between the cars, and thus risk life and limb.

In order to lock the pin in a raised position, and thus prevent the cars from coupling, except when it is desired that they should, the rod N is given an endwise sliding movement through its bearings, so that the arm L can be made to catch over or be detached from the projection P on the side of the draw-head. When the arm is made to catch over the projection, the lower end of the crank is forced

forward in such a manner that the coupling-pin is raised to its highest position, and is locked there so that it cannot fall and couple the cars together when they jar together. In order to detach this arm from or make it catch over the projection, the rod N must be moved endwise through its bearings.

In order to couple and uncouple from the top of the cars, the lever or rod Q is used. This rod is slotted at the point where the pin or bolt R passes through it, so as to allow the rod an endwise movement for the purpose of operating the rod N. In the lower end of this rod Q is made a suitable slot, S, where it catches over the bent end of the rod N, so as to allow a free movement between the parts. A person standing upon the top of the car can, by this rod Q, both move the rod N endwise and partially revolve it, so as to raise or lower the pin. Having thus described my invention, I claim—

1. The combination of the draw-head, the trigger pivoted therein, the coupling-pin provided with a projection for catching on the trig-

ger, a crank for operating the pin, and a partially-rotating rod provided with an arm for connecting with the crank, substantially as set forth.

2. The combination of the draw-head provided with the projection P, the coupling-pin, a crank connected thereto, an endwise-moving and partially-rotating rod provided with an arm for operating the crank and catching over the projection, substantially as specified.

3. The combination of the draw-head provided with the projection P, the notched trigger, the coupling-pin provided with a projection, the operating-crank connected to the pin, the endwise-moving and partially-rotating rod N, provided with the arm L, and the slotted rod Q, connected at its lower end to the rod N, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM ROBINSON.

Witnesses:

SIDNEY A. RHODES,
JAMES NEWMAN.